

U.S. Pat. App. Ser. No. 10/587,667
Attorney Docket No. 10191/4866
Reply Brief

[10191/4866]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Application of: :
Michael GILGE : Examiner: William M. Treat
For: DATA GATHERING/DATA PROCESSING: :
DEVICE FOR VIDEO/AUDIO SIGNALS :
Filed: June 8, 2007 : Art Unit: 2181
Serial No.: 10/587,667 :
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MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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on April 4, 2011.

Signature: /Marcello Petrone/
Marcello Petrone

REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

SIR:

Appellant submits the present Reply Brief (the two-month response date for which is April 4, 2011 (since April 3, 2011 is a Sunday) in response to the Examiner's Answer dated February 3, 2011 ("the Answer").

It is respectfully submitted that the final rejections of claims 14 to 35 should be reversed, and these claims should be allowed for the reasons explained herein.

Finally, the Office is again encouraged to contact the undersigned if there are any questions as to any matters.

REPLY

**A. OBVIOUSNESS REJECTIONS OF
CLAIMS 14 TO 28, 31, 32, 34 & 35
UNDER 35 U.S.C § 103(a)**

Claims 14 to 28, 31, 32, 34 and 35 were rejected under 35 U.S.C. § 103(a) as obvious over German Patent No. DE 10153484 (the “Gilge” reference) in view of Local Area Networks Architectures and Implementations (the “Martin” reference).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

The Office conclusorily asserts that the traversal of the Official Notice in the Office Action of September 29, 2009 was inadequate because it did not state why the noticed facts were not part of the common knowledge or well-known in the art. However, M.P.E.P.

§ 2144.03(A) states that Official Notice “**should be rare when an application is under final rejection or action under 37 CFR 1.113.**” and “should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are *capable of instant and unquestionable demonstration* as being well-known.” (emphasis added).

As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). Further, “[i]t is never appropriate to rely solely on ‘common knowledge’ in the art without evidentiary support in the record, as the *principal evidence* upon which a rejection was based.” *Id.* Thus, whenever Official Notice is taken, it is believed and respectfully submitted that the *initial* burden is on the Office to provide documentary evidence to support its assertions.

It should be noted that MPEP 2144.03 describes instances where documentary evidence will not be required necessarily (“desirable to make something faster, cheaper, better, or stronger” or “in a first Office action to take official notice of facts by asserting that certain limitations *in a dependent claim* are old and well known expedients in the art without the support of documentary evidence provided the facts so noticed are of notorious character and serve only to ‘fill in the gaps’”). Conversely, “assertions of *technical facts in the areas of esoteric technology or specific knowledge of the prior art* must always be supported by citation to some reference work recognized as standard in the pertinent art.” Furthermore, other instances where the Examiner is required to provide documentary evidence include references to a chemical theory or *the state of the art*. (MPEP 2144.03, emphasis added).

Applicants respectfully submit that in the present application, the Official Notice of the Office Action of September 29, 2009 took official notice of facts by asserting that certain limitations *in an independent claim* are old and well known expedients in the art without the support of documentary evidence.

Still further, the Official Notice of the Office Action of September 29, 2009 also made assertions of *technical facts* (existence of backbone Ethernet switches with certain

capabilities) in areas of esoteric technology (computer networks) and regarding specific knowledge of the prior art or the state of the art (For most Ethernet applications ...) , which assertions must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) ("[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice.").

The Answer (of February 4, 2011) asserts (at pages 15-16) that computer networks do not represent an esoteric technology to "one skilled in the art" and that one working in computer networking would not find computer networks to be esoteric technology. However, in In re Grose, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979) the court held that "[W]hen the PTO seeks to rely upon a chemical theory, in establishing a prima facie case of obviousness, it must provide evidentiary support for the existence and meaning of that theory." If the court had applied the reasoning of the Examiner's answer it would have concluded that chemical theories are not esoteric to those actively working in the chemical field and therefore acceptable for Official Notice.

The Answer conclusorily asserts (at pages 17-18) that one of ordinary skill in the art would look at the star network of the Gilge reference and recognize that the evaluation processor/hub of the star network was performing duties better handled by an off-the-shelf Ethernet backbone switch and therefore the prima facie case of obviousness stands even without the Official Notice. However, such an unsupported assertion is not sufficient under KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007). In this regard, the Supreme Court noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (Id. at 1396).

This is because the assertion that the evaluation processor/hub of Gilge was performing duties better handled by an off-the-shelf Ethernet backbone switch is an unsupported assertion regarding the relative capabilities of the different devices and not an

articulated reasoning with some rational underpinning to support the legal conclusion of obviousness as required under KSR, even if it is asserted that an Ethernet backbone switch would be more cost efficient.

In the Advisory Action of May 14, 210, the Office asserts that “Given that the Examiner is incorrect, applicant might also provide a publication pointing out facts which clearly contradict the examiner’s Official Notice”. As explained above, however, Official Notice should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.

It is clear that the Office bears the initial burden of demonstration and it would be improper for the Office to attempt to shift the burden to the applicant who would then be forced to prove a negative assertion. In other words, if the Official Notice is proper, responding to a challenge with supporting documentation ought to be easy, much easier than proving a negative assertion. If responding to the challenge with supporting documentation is not easy, the Official Notice is probably not proper.

As to M.P.E.P. § 2144.03(C), under 37 C.F.R. § 1.111(b), an applicant is only required under the rules to reduce to writing a reply to “specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art” Further, the Court of Customs and Patent Appeals has stated that “[i]n the absence of *anything in the record* to contradict the examiner's holding, and in the absence of *any demand by appellant for the examiner to produce authority* for his statement, we will not consider this contention.” *In re Chevenard*, 139 F.2d 711, 713, 60 USPQ 239, 241 (CCPA 1943) (emphasis added).

In the Advisory Action of May 14, 210, the Office asserts that merely allowing applicant to assert that he is not convinced would make a mockery of the provisions of M.P.E.P. § 2144.03(C). However, as noted in the Advisory Action at the continuation of 11, “Applicant has argued that the examiner’s Official Notice is based on his personal knowledge” and this does state why the noticed fact is not considered to be common knowledge or well-known in the art, even if the Office does not agree with the merits of the

contention. Although an Examiner may rely on facts within his or her own knowledge to support a rejection. When relying on personal knowledge, however, the Examiner must provide an affidavit or declaration setting forth specific factual statements and an explanation to support the finding. (MPEP § 2144.03(C)). Such an affidavit is subject to contradiction or explanation by the affidavits of the Applicant and/or other persons. (See 37 CFR §1.104(d)(2)).

Thus, it is believed and respectfully submitted that the C.F.R. and the case law provide that to traverse Official Notice, an applicant is only required to distinctly point out the errors in the Official Notice and demanding that the examiner produce authority. In the present case, the error in the Official Notice has been specified and it has been specifically requested that the Examiner provide an affidavit and/or published information, thereby meeting this requirement.

In the Advisory Action of May 14, 210, the Office asserts that “As to applicant’s interpretation of his response being adequate in terms of 2144.03 C, applicant provides no evidence or persuasive argument to support his position as to why the examiner’s Official Notice is not correct”. As explained above, the response have specifically pointed out what Applicant believes to be erroneous regarding the Examiner’s Official Notice regardless of whether the Office finds the arguments to be persuasive.

It is respectfully submitted that the traversal of the Official Notice was sufficient since it has been stated on the record that the rejections supported by Official Notice are based on assertions that draw on facts which appear to be based on the personal knowledge of the Examiner. In other words, it has been specifically asserted that the facts noticed are not part of the common knowledge because the facts appeared to be drawn from the Examiner’s personal knowledge.

It is therefore respectfully submitted that any Official Notice previously taken has been adequately and timely traversed, so that contrary to the assertions in paragraphs (10) and (16) of the Office Action the noticed facts do not constitute admitted prior art.

Additionally, it is again requested that the Examiner provide a supporting affidavit or publication to support each factual assertion for which the Examiner has provided Official Notice.

Claim 14, as presented, is to *an evaluation device configured to analyze output of at least a subset of the signal processors, the evaluation device and the at least a subset of the signal processors each forming a direct link to one of a central hub, a switch and a port, of a network having a star-shaped topology.*

The Office Action has asserted the rationale of applying a “known” technique to a “known” device ready for improvement to yield predictable results. To rely on this rationale, the Office must articulate the following: (1) a finding that the prior art contained a “base” device (method, or product) upon which the claimed invention can be seen as an “improvement”; (2) a finding that the prior art contained a known technique that is applicable to the base device (method, or product); (3) a finding that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results and resulted in an improved system; and (4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness. M.P.E.P. § 2143. As explained below, the present rejections do not articulate the foregoing as required by the Office.

To date, the Office has not properly articulated the findings necessary to support the asserted obviousness rejections. As to item (1), the Office maintains that the system of the “Gilge” reference already contains a star network, in which the evaluation device is the central point, based on the Dictionary of Computers, Information & Telecommunications (the “Rosenberg” reference).

For the reasons explained below, the “Gilge” reference does not constitute a star network according to the definition assertedly provided in the “Rosenberg” reference.

To constitute a star network according to the “Rosenberg” reference, there must a central or controlling node. However, there is nothing to indicate that the evaluation device of the “Gilge” reference is either a central node or a controlling node. In particular, the

Answer and the Office Actions to date point to various functions of the evaluation device that relate to the reception, processing and transmission of data. However, these functions do not involve any apparent control of data traffic. Instead, it appears that the evaluation device passively responds to input from those components to which it is connected.

Further in this regard, the nature of the controlling is unclear from the definition provided in the “Rosenberg” reference, which does not provide any indication of what it means to be a controlling node. The evaluation device therefore does not exert the control necessary to constitute a “controlling node,” so that the “Gilge” system is not a star network, as provided for in the context of the presently claimed subject matter.

As to item (2) (as to whether the Ethernet techniques of the “Martin” reference are applicable to the “Gilge” system), the Office apparently and conveniently includes (without reason) various networking features into the “Gilge” system, such as evaluating data, balancing network traffic, recording network data, performing network error checking and correction, and adapting to increased workload from additional device. Although these features are absent from the “Gilge” system, the Office conclusorily asserts that it is conventional with networks (like the “Gilge” system) to include these features. The Office also assumes that the evaluation device necessarily implements these features. As explained above, the evaluation device is not a controlling node. The mere fact that the evaluation device communicates with an external network is insufficient to conclude that the system as a whole is itself a network formed around the evaluation device, as provided for in the context of the claimed subject matter.

As to item (3), it is respectfully submitted that one of ordinary skill in the art would not have recognized a need for the networking features described above. The Office Action conclusorily asserts that the benefits of applying Ethernet techniques to the “Gilge” system would be recognized as predictable, but the asserted reasons are wholly based on hindsight. The Office has not asserted that the asserted disadvantages of the “Gilge” system (e.g., costs of paying staff to program, construct, and support appropriate unique network systems, costs to test software and hardware for reliability and costs to balance and rebalance workload) would be recognized at the time of the applied references. Instead, the Office appears to

suggest that the authors of the “Gilge” reference necessarily had the foresight to create a system that would be amenable to modification in view of later realized needs.

Additionally, the Office has not explained why it would be obvious to apply the Ethernet techniques of the “Martin” reference to arrive at the specific configuration of the present application, as presented in the claims (e.g., a configuration in which the evaluation device would form a direct link to the hub/switch). The “Martin” reference does not disclose how to modify an existing system to implement a star network. For instance, the “Martin” reference does not address the situation of substituting a central switch for an existing component, and it also does not indicate how to connect the existing component relative to the central switch after substitution is performed. Thus, the combination of the applied references would not enable one of ordinary skill in the art to arrive at the presently claimed subject matter.

Based on these reasons, it is respectfully submitted that the “Martin” reference does not cure the deficiencies of the primary “Gilge” reference, so that one skilled in the art would not be motivated to combine these references.

For at least the above reasons, claim 14, as presented, is allowable, as are its dependent claims 15 to 28, 31 and 32.

Claims 34 and 35 each provide for features substantially similar to those of claim 14 and are therefore allowable at least the same reasons. In addition, claims 34 and 35 provide for additional features not disclosed or suggested by the cited references. For example, claims 34 and 35 provide for features relating to the operation of the hub/switch/port. In addition to engaging in full duplex communication with each of the signal processors, the hub/switch/port communicates signal processor output to the evaluation device, communicates evaluation device to a second device coupled to an output connection, and communicates an input from the second device, received via the output connection, to the evaluation device.

Thus, the evaluation device as presented in claims 34 and 35 is actively responsible for various types of intra-device as well as inter-device communication.

Accordingly, claims 34 and 35, as presented, are allowable for these further reasons.

**B. OBVIOUSNESS REJECTIONS OF
CLAIMS 29, 30 & 33 UNDER 35 U.S.C § 103(A)**

Claims 29, 30 and 33 were rejected under 35 U.S.C. § 103(a) as obvious over the “Gilge” reference in view of the “Martin” reference and U.S. Patent Application Pub. No. 2004/0264493 (the “Han” reference).

Claims 29, 30 and 33 depend from claim 14 and they are therefore allowable for the same reasons, since the “Han” reference does not cure – and has not been asserted to cure – the critical deficiencies of the “Gilge” and “Martin” references as to claim 14.

Additionally, claim 33 and, respectively, claims 29 and 30, include the features in which *“the plurality of signal processors are configured to communicate with one another in full duplex mode”* and in which *“at least a subset of the plurality of signal processors is assigned a specific bandwidth.”* Although the Office conclusorily asserts that full duplex communication and assigning of bandwidth are somehow provided by the “Han” reference as known capabilities of Ethernet switches, no reasons are provided as to why it would be obvious to implement these features with the “Gilge” system which does not include an Ethernet switch.

As further regards all of the obviousness rejections, the Examiner never provided an affidavit and/or published information concerning these assertions, even though requested to do so and even though the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

As to simply “Googling” some terms after the fact, such a search does not address the fact that an affidavit and/or published information was not provided concerning these assertions, even though requested to do so and even though the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported

assertions. The reason for doing so is that Applicants should have a fair and reasonable opportunity to respond to such specific assertions before appeal.

It is respectfully submitted that instead of providing a *prima facie* case of obviousness, the Office is simply stating, without any supporting evidence, that it would have been **obvious to try** the combination asserted by the Answer and the Final Office Action. In this regard, the cases of In re Fine, *supra*, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Answer and the Office Actions to date reflect a subjective “obvious to try” standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

It is believed and respectfully submitted that the Answer and the Office Actions to date offer no proper evidence, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide **proper evidence of a motivation** for modifying or combining the references to provide the claimed subject matter.

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not the case here — there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of the reference, whether taken alone or combined, makes plain that it simply does not describe the features discussed above of the rejected claims.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that not even a *prima facie* case has been made in the present case for obviousness, since the Answer and the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (See In re Kotzab, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing In re Dembiczak, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such showings by the Answer and the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and this Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788

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(Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case — which has not been met in the present case. (See *In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

It is therefore respectfully requested that all rejections of the pending claims be withdrawn.

CONCLUSION

In view of the above, it is respectfully requested that the rejections of claims 14 to 34 be reversed, and that these claims be allowed as presented.

Respectfully submitted,

Dated: April 4, 2011

By: /Aaron Deditch/

Aaron Deditch (Reg. No. 33,865) for:
Gerard A. Messina
(Reg. No. 35,952)

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200

CUSTOMER NO. 26646

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